

PAX – Tools für den OSGi Alltag

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SWIFTMIND

Agenda

- Pax Ecosystem
- Pax Construct
- Pax Runner
- Pax Exam
- Pax Web



About me

- Patrick Baumgartner
- Senior Software Consultant at Swiftmind
- Web development with Spring Framework
- OSGi with Spring DM & Spring Framework
- Agile Software Development
- Co-Author of “OSGi für Praktiker”



Pax Ecosystems

- Umbrella project for OSGi at OPS4J
- Framework and platform independent
- Tools and service implementations

Pax Ecosystem



A word cloud representing the Pax Ecosystem. The words are arranged in a dense, overlapping manner. The colors used are orange, dark blue, and light blue. The words include: Construct, Logging, Server, Shell, Web, Swissbox, URL, Wicket, Runner, LDAP, Scanner, and Exam.

Construct
Logging
Server
Shell
Web
Swissbox
URL
Wicket
Runner
LDAP
Scanner
Exam

Pax Construct

- Commandline Tool like Roo, Rails, Grails ...
- Maven 2 based
- Archetypes & shell scripts
- Create and manage projects



Pax Construct

- pax-create-project
- pax-add-repository
- pax-create-bundle
- pax-import-bundle
- pax-embed-jar
- pax-wrap-jar
- pax-provision
- pax-create-module
- pax-move-bundle
- pax-remove-bundle
- pax-update
- pax-clone



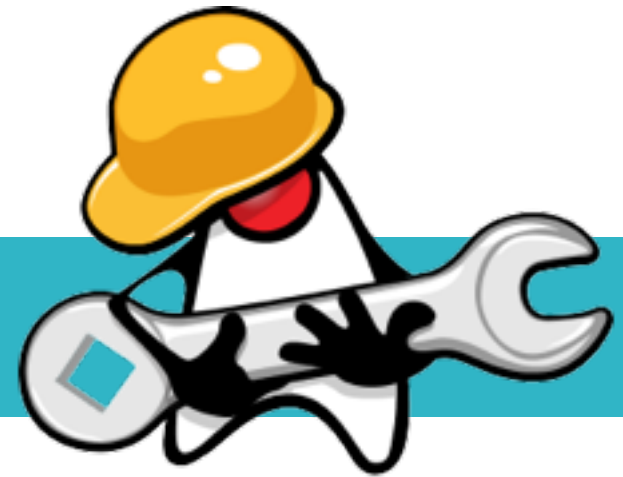
Pax Construct – Quick start

- Download from Maven repo
- Unzip archive
- Add *bin* folder to system path

-> You are ready to build the first OSGi project



Demo



PaxConstruct

Pax Runner

- Starts all major OSGi platforms
- Provisions required artifacts
- Generates configuration
- Runs target platform in a new JVM
- Running as a daemon



Pax Runner – Quick start

- Download pax runner
 - Unzip archive
 - Add *bin* folder to system path
- > Now let's run different OSGi platforms



Demo



Pax Exam

- Integration test framework
- Real integration tests
- JUnit and Pax runner based
- Configuration
 - fluent API
 - pom.xml



Pax Web

- OSGi R4 Http Service
- Web Container (RFC66)
- Based on Jetty 6
- JSP Support
- WAR Extender



Pax Web – Web Bundles

- Manifest headers
 - Bundle-ManifestVersion:2
 - Bundle-SymbolicName
 - Bundle-Version (optional)
 - Bundle-Name (optional)
 - Webapp-Context
 - Bundle-ClassPath
 - Import-Package
 - Require-Bundle



Pax Web with Pax Constuct

- Change packaging to *war*
- Override maven-bundle-plugin
- Add maven-war-plugin
- Use *web* profile or get dependencies from Maven repository



Pax Web

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Questions ?



Contact

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- [@patbaumgartner](#)
- <http://www.osgi-buch.com>



Pictures

- Agenda - <http://www.sxc.hu/photo/1142603>
- OSGi für Praktiker – <http://www.hanser.de/buch.asp?isbn=3-446-42094-0>
- Pax Ecosystem - http://www.abcya.com/word_clouds.htm
- Pax Construct - <http://wiki.ops4j.org/display/paxconstruct/Pax+Construct>
- Pax Web - <http://wiki.ops4j.org/display/paxweb/Pax+Web>
- Pax Exam - <http://wiki.ops4j.org/display/paxexam/Pax+Exam>
- Questions - <http://www.flickr.com/photos/orsorama/138560428>
- Resources - <http://www.sxc.hu/photo/1184809>

Resources

- <http://wiki.ops4j.org/display/ops4j/Pax>
- <http://pragprog.com/titles/cwosg/modular-java>
- <http://www.osgi-buch.com>

